

CLAIMS

1. A heat cooking apparatus provided with a supporting unit (3) for supporting a cooking tool (9) and a heating unit (14) for heating the cooking tool, characterized by:

a receiving unit (41) capable of receiving temperature data of the cooking tool (9) or temperature data of an object to be cooked in the cooking tool (9) transmitted in the form of infrared rays from the exterior; and

a controlling unit (35) for drive-controlling the heating unit (14) on the basis of temperature data received by the receiving unit (41).

2. The heat cooking apparatus according to claim 1, further characterized by a temperature detecting unit (15) detecting a temperature of the cooking tool (9) via the supporting unit (3), and in that the controlling unit (35) controls the heating unit (14) so that when temperature data has been transmitted in the form of infrared rays from the exterior, the heating unit (14) is controlled on the basis of the temperature data and so that when no temperature data has been transmitted in the form of infrared rays from the exterior, the heating unit (14) is controlled on the basis of temperature data detected by the temperature detecting unit (15).

3. A cooking tool which is used with a heat cooking apparatus having a receiving unit (41) capable of receiving data externally transmitted in the form of infrared rays, the cooking tool being

heated by a heating unit (14) of the heat cooking apparatus while being supported by a supporting unit (3) of the heat cooking apparatus, characterized by:

5 a temperature detecting unit (14) generating a signal according to a temperature of an object to be cooked accommodated; and

a transmitting unit (23) transmitting temperature data corresponding to the output signal from the temperature detecting unit (20) in the form of infrared rays to the heat cooking apparatus.
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4. The cooking tool according to claim 3, wherein the transmitting unit (23) is provided with a battery (21) of supplying electric power through wire.

15 5. The cooking tool according to claim 4, further characterized by a switching unit (43) of opening/closing the electric power supply circuit between the battery (21) and the transmitting unit (23) according to the temperature of the object to be cooked.

20 6. The cooking tool according to claim 4, characterized in that the transmitting unit (23) is provided with an output detector (27) detecting output voltage of the battery (21).

25 7. The cooking tool according to claim 5, characterized in that the transmitting unit (23) is provided with an output detector (27) detecting output voltage of the battery (21).

8. The cooking tool according to claim 3, further characterized by a primary coil and a secondary coil, and in that in a case where a high frequency current is caused to flow through the primary coil so that a heating unit (14) provided in the heat cooking apparatus performs an induction heating, the secondary coil is magnetically coupled to the primary coil by passing a high frequency current through a primary coil, there is provided a secondary coil (44) magnetically connected to the primary coil while the heating unit (14) is being driven for producing an electric power for operating the transmitting unit (23).

9. The cooking tool according to claim 8, characterized in that the secondary coil (44) is provided at the bottom of the vessel portion (10) in which matters to be cooked are charged.

10. The cooking tool according to claim 8, characterized in that the transmitting unit (23) is provided with a rectifying portion (45) rectifying the output voltage from the secondary coil (44) and a stabilizing electric supply portion (46) of stabilizing the rectified output voltage from the rectifying portion (45).

11. The cooking tool according to claim 9, characterized in that the transmitting unit (23) is provided with a rectifying portion (45) rectifying the output voltage from the secondary coil (44) and a stabilizing electric supply portion (46) of stabilizing the rectified output voltage from the rectifying portion (45).

12. The cooking tool according to claim 10, characterized
in that the transmitting unit (23) is provided with a load (51)
connected to the output terminal of the rectifying portion (45),
a rectified output detecting portion (47) detecting the magnitude
5 of the rectified output voltage given to the stabilizing electric
supply by the rectifying portion (45) and a rectified output
controlling portion (32) controlling the magnitude of the
rectified output voltage given to the stabilizing electric supply
by the rectifying portion (45) by adjusting the magnitude of the
10 load (51) on the basis of the results of detection by the rectified
output detecting portion (47).

13. The cooking tool according to claim 3, characterized
in that the transmitting unit (23) is composed of an infrared
15 ray transmitting module.

14. A heat cooking system comprising a cooking tool (9) and
a heat cooking apparatus heating the cooking tool (9) while being
supported on a supporting unit (3) by a heating unit (14),
20 characterized in that the cooking tool (9) is provided with a
temperature detecting unit (20) of the matters to be cooked
received therein and a transmitting unit (23) transmitting to
the heat cooking apparatus temperature data corresponding to
output signal from the temperature detecting unit (20) in the
25 form of infrared rays and the cooking tool is provided with a
receiving unit (41) capable of receiving temperature data
transmitted in the form of infrared rays by the cooking tool (9)
and a controlling unit (35) controlling the heating unit on the

basis of temperature data received by the receiving unit (41).